snap**SHOT**™
for Windows® CE

One more reason to look to Bently Nevada for all your Machinery Management needs

by Brad Law

Market Manager, Control and
Automation Systems
Bently Nevada Corporation
e-mail: brad.law@bently.com

and Chris Dagnall

Project Applications Engineer
Bently Nevada Corporation
e-mail: christopher.dagnall@bently.com

Bently Nevada is no stranger to portable data collection. We've been providing hand-held, route-based portable data collectors for over 15 years, beginning with our original Snapshot™ product and evolving to Snapshot™ II, Trendmaster®, Trendmaster FFT, and Snapshot™ Plus. During that time, we've learned much about the role of portable data collection and its importance in establishing a machinery management strategy that can reach every machine in your plant, not just "the big stuff." That's why our newest and most advanced portable data collection system – Snapshot™ for Windows® CE – is such an important part of our product line. It represents our commitment to "Helping you Protect and Manage **_all_** your Machinery®."

In many ways, Snapshot™ for Windows® CE is a continuation of everything we've learned in the past about portable data collection – what works, what doesn't. That's why we are continuing to use the Snapshot name – it tells you you're buying a product that is simply the latest version of a long line of Snapshot portable data collectors. However, our latest Snapshot is more than just "another data collector." It embodies advances in technology that simply weren't possible until recently: things like ultra-lightweight design, compact size, and extended battery life – not to mention the balance of

performance, flexibility, and ease-of-use that its Microsoft Windows® CE operating system affords.

Armed with this advanced technology and our experience, we set out to make this Snapshot a superior portable data collector. We also did one more thing: we consulted the experts – you, our valued customers. With this in mind, we sent our design team into the field to perform one of the most thorough marketing and user-needs definition exercises Bently Nevada has ever undertaken. As a result, we understand what you need in a portable data collector.

Here's what you told us…

Must be easy to use…

Snapshot™ for Windows® CE is designed to serve the needs of both "surveillance" and "diagnostic" users.

For surveillance purposes, the user can simply and quickly collect dual channel vibration amplitude and phase data, temperature measurements, select observations from a list, and even type a note for recall later. Once the data has been collected and a problem requiring further investigation found, Snapshot provides the ability, with data displays, to help diagnose machinery problems. All relevant machinery data can be displayed on the instrument's integral touch-screen display. Data display formats include full and half spectrum, orbit and timebase, 1X and 2X vectors, Prime Spike and Rotor Region filtered data (valuable tools for monitoring rolling element bearing condition), and many others.

Must collect _all_ the data needed to get the job done…

Many tasks _require_ two channels plus phase to really find out what's wrong and deal with the root causes – not the symptoms – of mechanical failures. Few products on the market can actually deliver the required performance in a package that is small enough for every-day data collection needs, yet powerful enough to meet your most advanced diagnostic requirements for general-purpose machinery. Snapshot can. It

provides two fully-enabled, identical data acquisition channels plus a separate Keyphasor® phase reference input. If you're used to using two different products – one for surveillance and another for diagnostics – prepare to simplify your life with a single, powerful product that delivers the best performance on the market.

Must be lightweight and ergonomically-designed…

Snapshot is lightweight (approximately 4 pounds!), so it can be held easily in one hand. The hand strap and keypad design, along with its light weight, mean that you can hold and operate the Snapshot with either hand.

Must be rugged…

To operate every day in a harsh plant environment, Snapshot has been designed to meet the stringent requirements of IP65. The product has undergone a thorough development program, using computer modeling techniques and impact and drop tests during all phases of development. This means it won't let you down when you need it most. Because you're working on and around machinery, we've made the product with breakaway transducer cables to ensure you're using a product that's safe and rugged.

Must be easy to see…

A clear, easy-to-read, backlit display ensures you can not only collect data, you can *see* it. Snapshot's in-field alarms mean you can see at a glance if the machine is experiencing abnormal conditions while you're collecting data – no need to wait until you connect to the host computer and transfer data.

Must permit a full day's work…

Snapshot's battery lasts a minimum of eight hours when you're in the field collecting or diagnosing data. With its internal transducer power supply, there's no need to carry additional boxes for powering transducers.

Must be flexible…

Multiple data collection schedules can be loaded into Snapshot. The selected schedule is easy to navigate and can be quickly modified in the field. Unsure about anything? You can simply use Snapshot's built-in help system for easy, intuitive guidance on how to get the most from your instrument. Additionally, Snapshot uses the Microsoft Windows CE operating system, which gives a familiar look and feel to its operation. The result is a user-friendly instrument with minimal training needed for the user interface. For additional flexibility, you can use your Snapshot with either the keypad or the integral touch screen, even when you're wearing gloves.

Must be a platform for the future…

Snapshot™ for Windows® CE has been designed for the future – the basic hardware provides a platform for future expansion. We will be adding software utilities (such as balancing) and hardware connectivity (such as alignment and automatic point identification),

About System 1

System 1™ is a true machinery management platform. Its phased development ensures your initial System 1 investment will increase in functionality over time – protecting your machinery management system investment as it matures by allowing you to migrate from what you are using today to an integrated platform of tomorrow. This phased development will result in a machinery management platform that will eventually incorporate:

- Off-line, periodic on-line, and continuous on-line data acquisition.
- Rolling element bearing support.
- Data import and export capabilities with industry-standard data transfer methods, such as OPC (OLE for Process Control) and others.
- Support of selected existing – and all new – machinery protection monitoring and data acquisition systems from Bently Nevada.
- Integrated Decision Support™ capabilities for all classes of machinery.
- Integrated performance monitoring.
- A rolling element bearing database with information from numerous manufacturers, including part numbers, dimensions, number of elements, etc.
- Oil analysis and other predictive maintenance technologies.
- *And much more…*

Upon initial release, System 1 will provide support for our new Snapshot™ for Windows® CE data collector. From this, System 1 will grow to include support for selected Bently Nevada Communications Processors, our Trendmaster® 2000 hardware, and other data acquisition devices. This phased product development plan to expand System 1 capabilities, as outlined here, keeps Bently Nevada at the forefront of machinery management solutions for *all* your machinery. ↻

allowing you to expand the capabilities of your portable program. Snapshot will grow in functionality, protecting your investment over time.

Must integrate the "on-line" and "off-line" worlds…

Snapshot is "System 1™ enabled." That means it, and other Bently Nevada data acquisition hardware, will communicate with our soon-to-be-released System 1 machinery management software. *This major step forward will evolve to allow you to integrate off-line data (from Snapshot for Windows CE) and on-line data (from numerous Bently Nevada and third-party products) in a single database and display environment.* This integrated platform will allow users to reap the benefits of combining Bently Nevada's *proven*, continuous, on-line data acquisition system (including automated transient data collection) with off-line data. *You view all classes of machinery assets in a single display environment.*

The System 1 machinery management software will act as the Snapshot application software. System 1 can be used cost-effectively as a stand-alone system with Snapshot for Windows CE to provide off-line data storage, display, and diagnostics. It will also provide future support for Bently Nevada's continuous, on-line data acquisition systems for integrated off-line and on-line data.

Want to know more?

For information on System 1 and Snapshot™ for Windows® CE, visit www.bently.com/mktreference.htm, or contact your nearest Bently Nevada sales professional. ↺

ANNOUNCEMENTS

Don Bently gives Keynote Address at Nevada Economic Development Commission

W hile Nevada is best known as a "24-hour" state with an economy centered on tourism and gambling, its future economic base will need to diversify to include more high-tech industries. Such was the topic of the recent conference of the Nevada Economic Development Commission, which brought together nearly 100 of the state's experts in science, industry, and technology from private industry, government, and education. The keynote speaker? None other than Bently Nevada's owner, founder, and Chief Executive Officer, Donald E. Bently.

Mr. Bently discussed how he was able to increase Bently Nevada's size from just 3 people when he relocated Bently Scientific Company from California to Nevada in 1961. It has become the high-tech leader in its field, employing over 1600 people worldwide, 950 of whom are located at its corporate headquarters in Minden, Nevada. Bently Nevada is enjoying its 44th year of continuous, profitable operation.

If you are interested in reading Don Bently's speech, please go to our website – **www.bently.com/mktreference.htm**. ↺